

ERGOPOWER™ COMMANDS - CURRENT RANGE

 ULTRA - SHIFT
 POWER - SHIFT
 (POTENZA 11™/CENTAUR 11)

(since 2015)			(since 2018)	(since 2018)	(since 2018)

⚠ WARNING!

This technical manual is intended for use by professional mechanics.

Anyone who is not a qualified professional for bicycle assembly must not attempt to install and operate on the components independently due to the risk of carrying out incorrect operations which could cause the components to malfunction, resulting in accidents, physical injury or even death.

The actual product may differ from what is illustrated, as the specific purpose of these instructions is to explain the procedures for using the component.

1 - TECHNICAL SPECIFICATIONS

REAR DERAILLEUR CONTROL	11s	REAR DERAILLEUR CASING	REAR DERAILLEUR CABLE	BRAKE CASING	BRAKE CABLE
ERGOPOWER POWER-SHIFT (POTENZA 11™ CENTAUR 11)	3 UP 1 DOWN	Ø 4.1 mm Campagnolo	Ø 1.2 mm	Ø 4.9 Campagnolo	Ø 1.6 mm
ERGOPOWER ULTRA-SHIFT	3 UP 5 DOWN	Ø 4.1 mm Campagnolo	Ø 1.2 mm	Ø 4.9 Campagnolo	Ø 1.6 mm

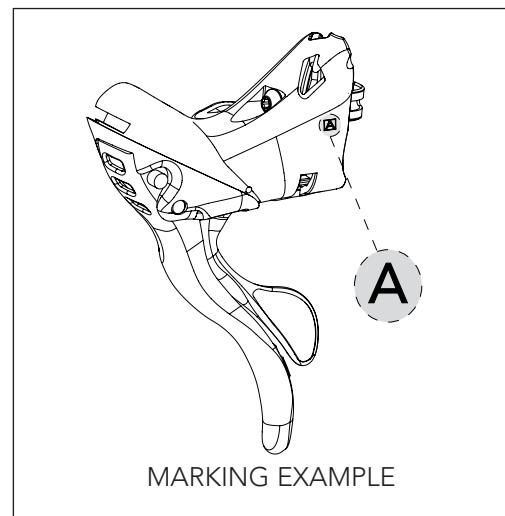
FRONT DERAILLEUR CONTROL	DOUBLE	FRONT DERAILLEUR CASING	FRONT DERAILLEUR CABLE	BRAKE CASING	BRAKE CABLE
ERGOPOWER POWER-SHIFT (POTENZA 11™ CENTAUR 11)	1 UP 1 DOWN	Ø 4.1 mm Campagnolo	Ø 1.2 mm	Ø 4.9 Campagnolo	Ø 1.6 mm
ERGOPOWER ULTRA-SHIFT	1 UP 1 DOWN	Ø 4.1 mm Campagnolo	Ø 1.2 mm	Ø 4.9 Campagnolo	Ø 1.6 mm

2 - COMPATIBILITY

The use of components that are not compatible with a specific drivetrain range, can significantly reduce the overall performance of the drivetrain. It is therefore advisable not to use components that do not belong to this drivetrain groupset.

To help you enhance performance, Campagnolo® has introduced a distinctive marking (a boxed letter as illustrated in the adjacent image) on the new Athena groupset components in order to indicate compatibility.

Check, therefore, that the letters (where present) on the components involved in rear derailleur shifting and front derailleur shifting match correctly.



ERGOPOWER 11s	MARKING ERGOPOWER	REAR DERAILLEUR 11s	FRONT DERAILLEUR 11s	CRANKSET 11s
ULTRA-SHIFT SR-R-CH 11s (CURRENT RANGE, SINCE 2015)	A	ULTRA-SHIFT SR-R-CH 11s (CURRENT RANGE, SINCE 2015)	ULTRA-SHIFT SR-R-CH 11s (CURRENT RANGE, SINCE 2015)	ULTRA-TORQUE BORA ULTRA POWER-TORQUE SYSTEM BULLET ULTRA CX11 COMP ONE COMP ULTRA
ULTRA-SHIFT H11 (Disc Brake)	NONE MARKING	SR-R-CH (HO) 11s	SR-R-CH 11s	H11 (HO)
POWER-SHIFT POTENZA 11™ (HO) (CURRENT RANGE, SINCE 2018)	C	POTENZA 11™ / POTENZA 11™ (HO)	POTENZA 11™	POTENZA 11™ ULTRA-TORQUE (HO) (CURRENT RANGE, SINCE 2018)
POWER-SHIFT POTENZA 11™ (HO) (Disc Brake)	C	POTENZA 11™ (HO)	POTENZA 11™	POTENZA 11™ ULTRA-TORQUE (HO) (CURRENT RANGE, SINCE 2018)
CENTAUR 11	D	CENTAUR 11	CENTAUR 11	CENTAUR 11 (ULTRA-TORQUE)

 **WARNING!**

Combinations other than those provided for in the table could cause the drivetrain to malfunction and could be the cause of accidents, physical injury or even death.

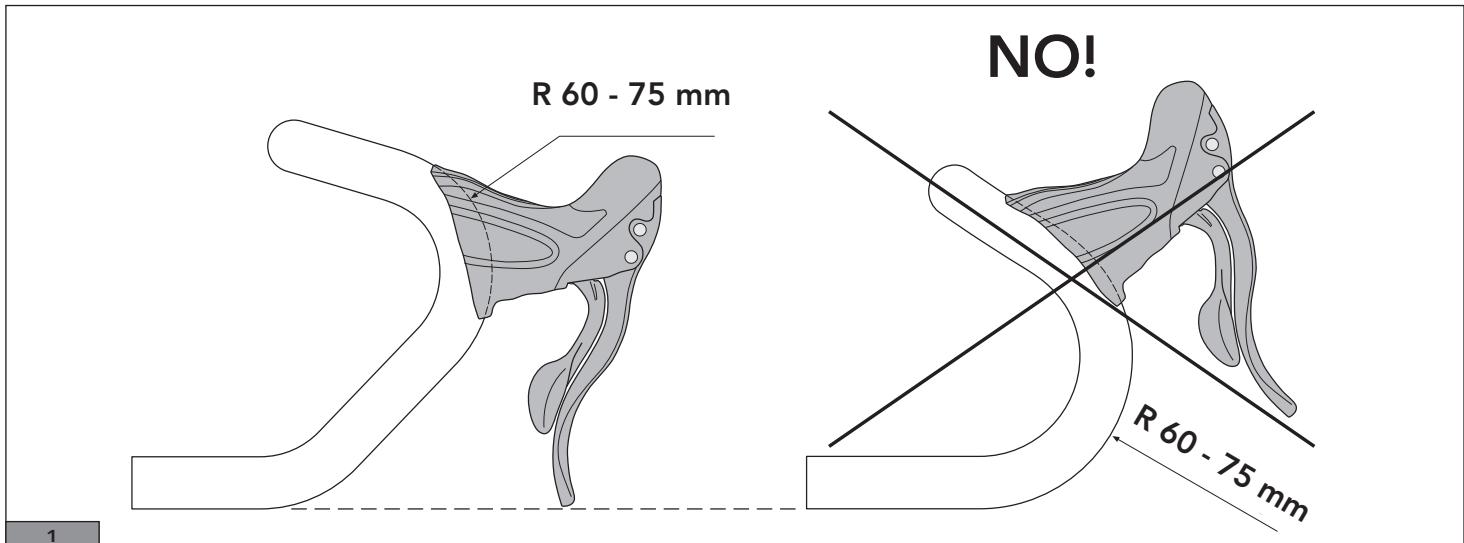
 **WARNING!**

Ergopower H11 commands, Ergopower Potenza 11™ HO (Hydraulic Optimisation) commands and Ergopower Centaur 11 commands are ONLY compatible with HO (Hydraulic Optimisation) and Centaur 11 cranksets which have an 8 mm chain-ring centre-to-centre distance.

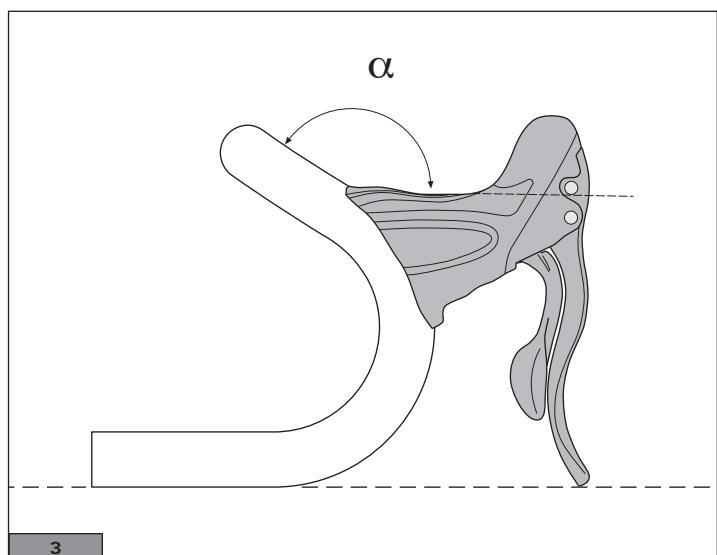
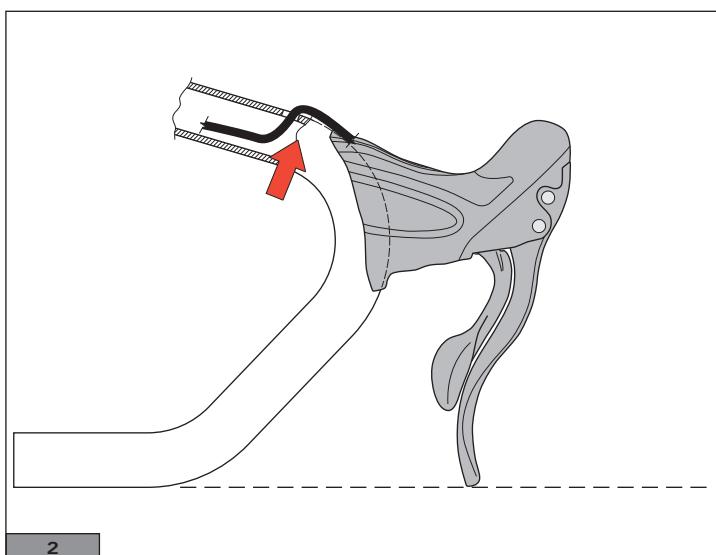
3 - INTERFACE WITH HANDLEBAR

⚠ WARNING!

If the controls are not fitted correctly they may cause accidents or physical injuries.



- Do not seat the top part of the control in the straight section of the handlebar (Fig. 1). Seat the control in the curved part with **R = 60 - 75 mm and diameter = 23.8 - 24.2 mm** (including any ovalization) to guarantee more effective fixing (Fig. 1).



CAUTION

The routing of cables of the type indicated in figure 2 seriously affect the shifting performance of the drivetrain.

DO NOT USE HANDLEBARS WITH THIS TYPE OF ROUTING OF CABLES.

- Ensure that the angle α is sufficiently large to guarantee correct assembly of the housing and the associated smoothness of the cable (Fig. 3).

CAUTION

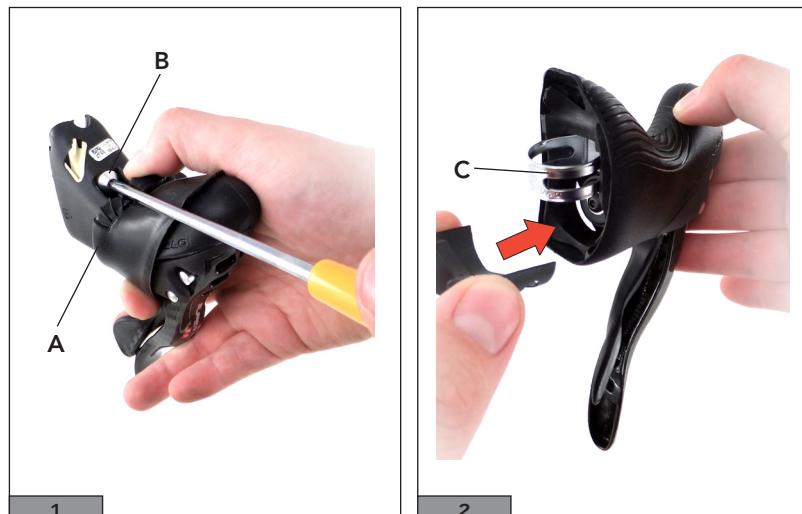
Make sure that the part of the handlebar onto which you are fitting the control has a surface rough enough to guarantee maximum adherence.

4 - ASSEMBLY

- Fold back the rear of the hood (A - Fig. 1) to expose the securing screw (B - Fig. 1).
- Loosen the bolt (B - Fig. 1) positioned in the top of the body sufficiently to fit the clamp (C - Fig. 2) on the untaped handlebar.

The ergonomics of the Ergopower™ controls can be adapted for cyclists with very large hands by applying an insert.

- Insert the large hands insert (where available) on the lower rear part of the command (Fig. 2) before installation on the handlebar.



Make sure that the arrow on the band faces towards the upper part of the control unit (C - Fig. 3).

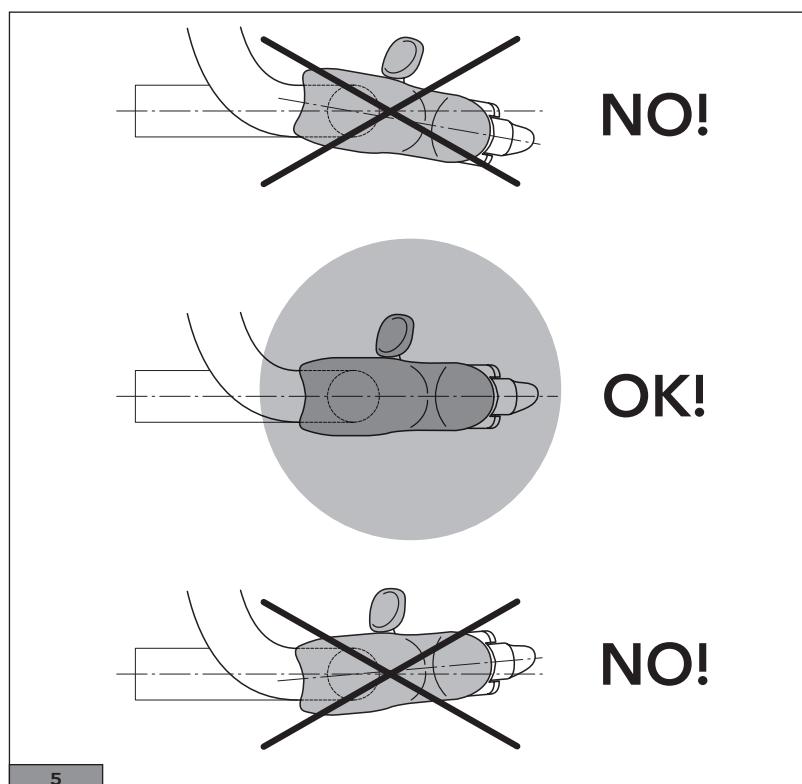
- If the hood has been completely removed, moisten the inside slightly with alcohol to facilitate installation on the control unit.

- Position the Ergopower™ control in the curved area of the handlebar and attempt to create a straight line if the handlebar bend lets you (Fig. 4).



- The control unit must be correctly oriented to avoid affecting bicycle aerodynamics (Fig. 5)

- Secure the control on to the handlebar by tightening the screw (B - Fig. 1) to **10 Nm (89 in.lbs)** using a torque wrench.



4.1 - FITTING THE DRIVETRAINS

- Install the cable guide plate under the bottom bracket shell, as follows:

- position the washer (A – Fig. 6) in the provided seat in the cable guide plate.

- place the cable guide plate under the bottom bracket shell and fix it by means of the provided screw (B – Fig. 6) with a torque of **3-4 Nm (27-35 in.lbs)**.

Different plates can also give rise to a serious loss of performance.

- The cable housings of the rear derailleur (Fig. 7) have a diameter of 4.1 mm, while the brake cable housings (Fig. 7) have a diameter of 4.9 mm.

Note

Use 4.1 mm housings exclusively with Ergopower Ultra-Shift controls.

- Depending on your frame, it may be necessary to cut the rear brake housing and install a housing end (not supplied in your Ergopower™ control levers package). and install a casing lead end (not supplied in your Ergopower™ control levers package).

⚠ WARNING!

Before cutting the housing, carefully check that the length you choose is suitable for the dimensions of your frame. Insufficient slack in the cable and housing could affect your ability to turn or control your bicycle, resulting in an accident personal injury or death.

NOTES

The housing must be cut so that the end is perpendicular to the length (Fig. 8). In addition, the cross section of the housing must not change. After cutting the housing, check that you have restored its roundness to ensure that there is no friction between the cable and housing.

To cut the casings, we suggest you to use the specific tool Park Tool CN-10.

Insert the end of the housing into the provided slot in the body of the control (Fig. 9) Ensure that the housing rests perfectly on the bushing fixed on the body.

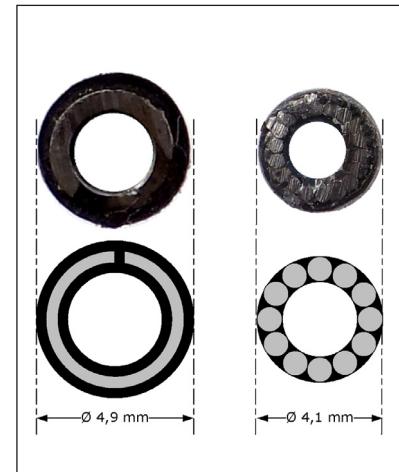
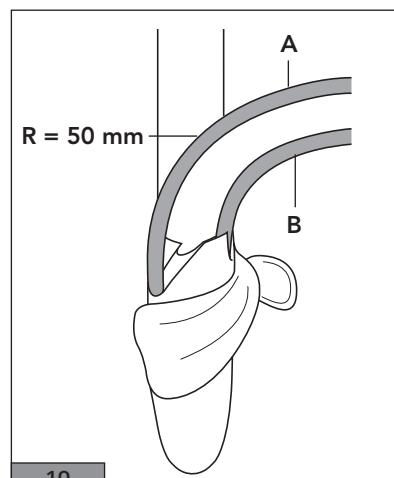
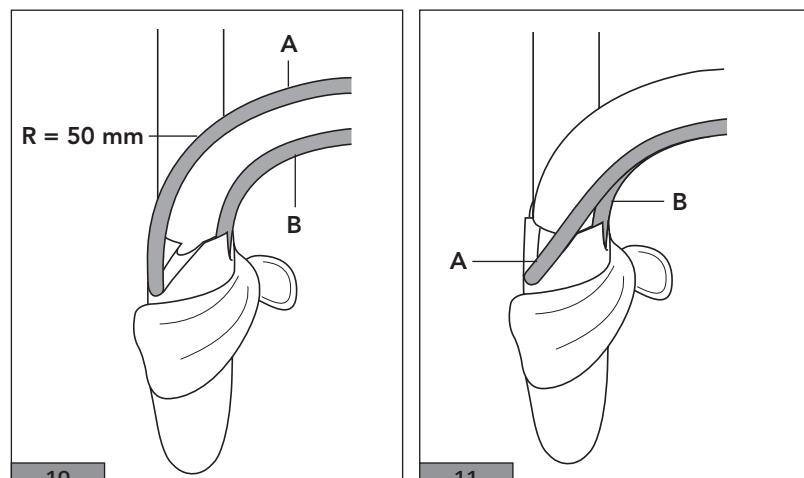
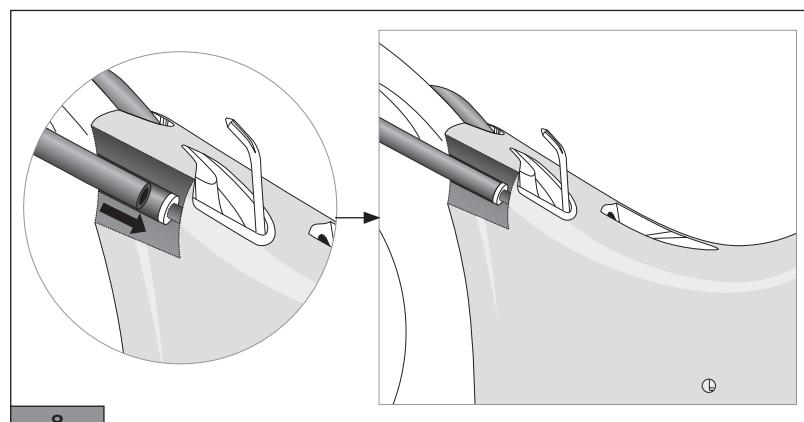
⚠ WARNING!

After installation, check that the cables do not interfere with your steering or any other function of your bicycle. Interference could affect your ability to turn or control your bicycle, resulting in an accident, personal injury or death.

- Attach the housing to the Ergopower™ control lever as illustrated. The rear derailleur (or front derailleur) housing (A - Fig. 10) should be positioned in the outer slot of the control unit; the brake housing (B - Fig. 10) should be positioned in the inner slot of the Ergopower™ control lever unit. If you prefer, you can pass the derailleur cable housing alongside the brake casing, as shown in figure 11.

CAUTION

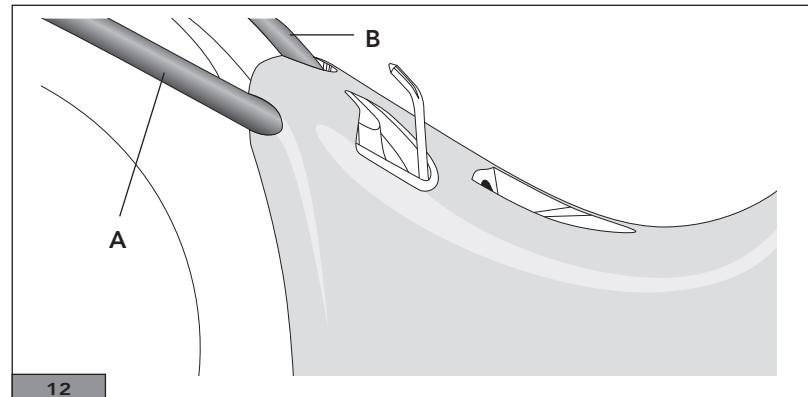
Position the cable so that it is as straight as possible. At all costs avoid kinks or sharp bends in the housing (less than $R = 50$ mm).



4.1.1 - REAR DERAILLEUR CABLE AND HOUSINGS

Lift up the hood and push the end of the 680 mm long, 4.1 mm diameter housing into the hole provided (Fig. 12).

Slightly bend the cable (for the first 5 – 10 mm) (Fig. 12) to facilitate insertion of the same into the housing.



12

- move the control to the smallest sprocket position (Fig. 13).

The Ergopower Ultra-Shift controls allow you to upshift up to five cogs in a single lever throw (i.e. 17T'16T'15T'14T'13T'12T).



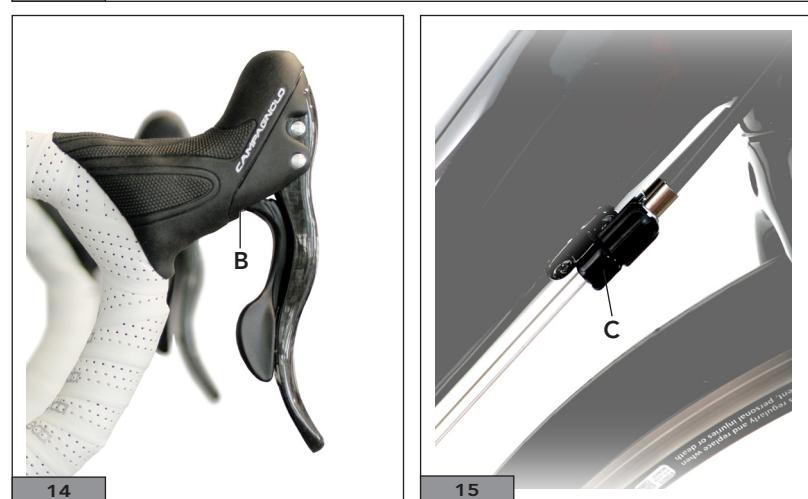
13

Insert the rear derailleur cable (length 2,000 mm - \varnothing 1.2 mm) into the bottom of the control (B – Fig. 14).

⚠ WARNING!

Before cutting out the housing, please be careful to make sure that the chosen length is suitable for the size of your frame. An insufficient length may cause too straight curves and will prevent the transmission from functioning properly (Fig. 18).

- Cut the housing (on the frame side) so that it reaches the metal cable stop on the frame (C - Fig. 15).
- After cutting the housing at the suitable length, fit a housing end and insert the housing in the Downtube barrel adjuster (C - Fig. 15) on the frame.



14

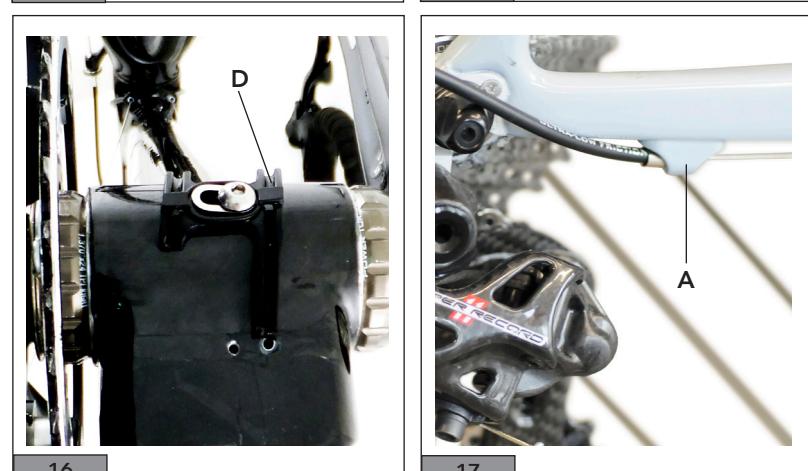


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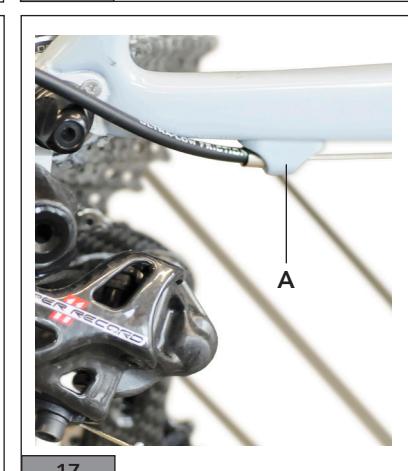
• Run the cable through the right hand opening (D - Fig. 16) of the cable guide plate located under the bottom bracket box; insert the cable into the support on the sheath.

• On the 330 mm - \varnothing 4.1 mm sheath apply a sheath terminal (some frames require the use of a special sheath terminal with a stop that comes with it), run the cable and insert it into the specific right hand rear sheath support (A - Fig. 17).

• Apply a sheath terminal to the other end of the sheath and secure the cable onto the rear derailleur (see the technical manual chapter on the rear derailleur).



16



17

ATTENTION

Use ONLY original Campagnolo housing end (internal diameter 4.3 mm - Fig. 19). Check that no abnormal folds have been created by forcing the cable.

- Please make sure that the cable is flowing freely within the sheath. Verify in particular that the sheath head entries are rectilinear (Fig. 19), to avoid hindrances to the gear-shifting system.

⚠ WARNING!

After installation, check that the cables do not interfere with your steering or any other function of your bicycle. Interference could affect your ability to turn or control your bicycle, resulting in an accident, personal injury or death.



18

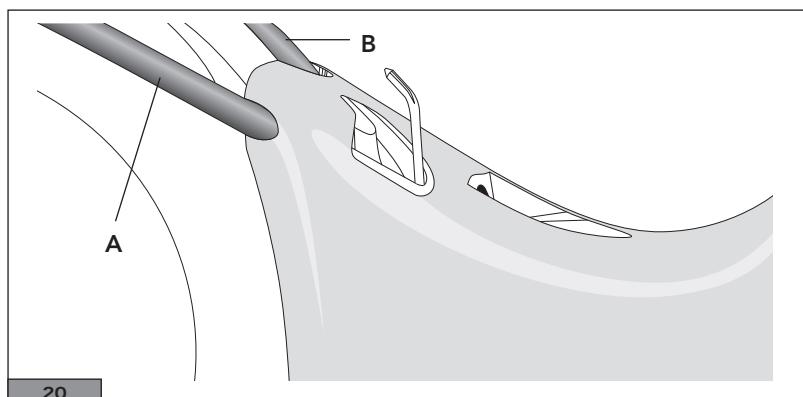


19

4.1.2 - FRONT DERAILLEUR CABLE AND HOUSING

Lift up the hood and push the end of the 680 mm long, 4.1 mm diameter housing into the hole provided (Fig. 20).

Slightly bend the cable (for the first 5 – 10 mm) (Fig. 20) to facilitate insertion of the same into the sheath.



20

- Move the control to the smallest chainring position (Fig. 21).



21

Insert the front derailleur cable (length 1,600 mm - Ø 1.2 mm) into the bottom of the control (B – Fig. 22).

⚠ WARNING!

Before cutting out the housing, please be careful to make sure that the chosen length is suitable for the size of your frame. An insufficient length may cause too straight curves and will prevent the transmission from functioning properly (Fig. 23).

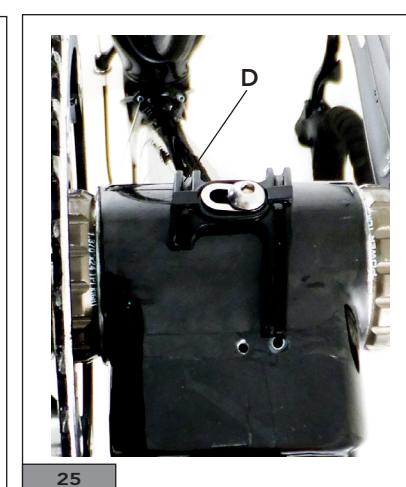
- Cut the housing (on the frame side) so that it reaches the metal housing stop on the frame (C - Fig. 24).

- After cutting the housing at the suitable length, fit a housing end and insert the housing in the Downtube barrel adjuster (C - Fig. 24) on the frame.

- If the frame is the type with internal cable routing, the Campagnolo cable tension adjuster for the front derailleur included in the package of the Ergopower commands must also be installed. Fit the tension adjuster with the knurled part at the bottom. The lower housing must provide the housing end cap while the upper housing is fitted without housing end cap (Fig.26).

The tension adjuster is placed near the handlebar in an area where it does not interfere with the frame.

• Ensure that the cable moves fluidly in the housing.



- Pass the cable through the LH slot on the cable guide plate (D - Fig. 25) located underneath the bottom bracket box and secure the cable to the front derailleur (refer to the derailleur technical manual for proper attachment of the cable to the front derailleur).

⚠ WARNING!

After installation, check that the cables do not interfere with your steering or any other function of your bicycle. Interference could affect your ability to turn or control your bicycle, resulting in an accident, personal injury or death.



4.1.3 - ADJUSTING THE CABLE TENSION

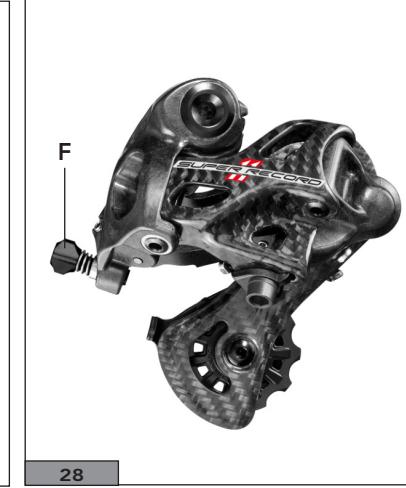
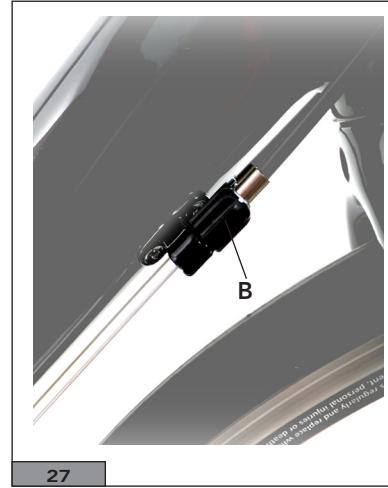
- Rear derailleur cable tension can be modified by turning the adjuster (Fig. 26) on the Downtube barrel adjuster (not included in the pack) or by using the adjuster (F - Fig. 28) placed on the rear derailleur body.

- **Adjust the cable tension in such a way as to shift the chain to the upper chainring by means of 3 CLICKS OF LEVER 2 of the left-hand control.**

- For the front derailleur adjustment is achieved using the sheath stop retaining screw (B - Fig. 27) or by using the adjustment system provided by the frame manufacturer, or by acting on the Campagnolo tension setting screw.

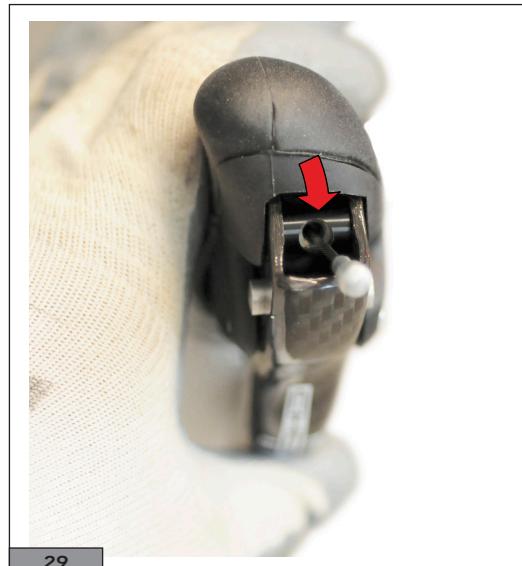
ATTENTION

For a correct adjustment of the derailleur there must be a Downtube barrel adjuster.



4.2 - REAR BRAKE CABLE AND SHEATH

- Insert the brake cable (length 1,600 mm - ø 1.6 mm) into the bushing on the right hand Ergopower™ control brake lever, ensuring that the cable stop head fits into its seat (Fig. 29).
- Ergopower™ control levers do not require a brake housing end.
- Depending on your frame, it may be necessary to cut the rear brake housing (1,250 mm long - diameter ø 4,9 mm) and install a housing lead end (diameter ø 6 mm).
- Insert the sheath (without the sheath terminal) into the control and into the brake sheath stop and secure the cable to the brake (see the "brakes" section).



29

4.3 - FRONT BRAKE CABLE AND SHEATH

- Insert the brake cable (length 800 mm - ø 1.6 mm) into the bushing on the left hand Ergopower™ control brake lever, ensuring that the cable stop head fits into its seat (Fig. 29).
- Ergopower™ control levers do not require a brake housing end.
- Depending on the frame you have, you may need to cut the front brake sheath (length 580 mm - ø 4.9 mm) and install sheath terminals (ø 6 mm).
- Insert the sheath (without the sheath terminal) into the control and into the brake sheath stop and secure the cable to the brake (see the "brakes" section).

4.4 - TAPING THE HANDLEBAR

- Fold back the hood.
- Tape the handlebar of the Ergopower™ control body.
- Refit the support hood in position.

⚠ WARNING!

Before using your Ergopower™ system on public roads, ride in an open, traffic free area to become familiar with the Ergopower's function and operation. Failure to do so could result in an accident, personal injury or death.

5 - MAINTENANCE

- Periods and riding distances are purely indicative and may be significantly different in relation to conditions of use and the intensity of your activity (for example: racing, rain, salted Winter roads, weight of the rider etc.). Check with your mechanic to select a schedule that is best for you based on your size, riding conditions and you riding style.
- Casings are supplied pre-lubricated and do not require any additional lubrication.
- Dirt seriously damage bicycles and their components. Thoroughly rinse, clean and dry your bike after using it in these conditions.
- Never spray your bicycle with water under pressure. Pressurized water, even from the nozzle of a small garden hose, can pass seals and enter into your Campagnolo® components, damaging them beyond repair. Wash your bicycle and Campagnolo® components by wiping them down with water and neutral soap. Dry them using a soft cloth. Never use abrasive or metal pads.
- Relubricate the drivetrains carefully using a lubricant suitable to purpose
- After applying the lubricant move the cranks and engage all possible gear combinations in order to thoroughly lubricate the entire drive system.
- Thoroughly clean any residual lubricant from the bicycle and floor.

6 - PERIODIC MAINTENANCE TABLE

PROCEDURE	KM INDICATION (MAX)	TIME INDICATION (MAX)	CALCULATION METHOD
check screws are tightened to the correct torque	2000	2 months	torque wrench
check by specialised mechanic	30000	3 years	
check by specialised mechanic (in case of competition use)	15000	1 year	
replace cables and sheaths	10000	1 year	
replace cables and sheaths (in case of competition use)	5000	6 months	